SCAR-LAB Report of Investigations 86-2:

An Archaeological Survey of the Idaho Chemical Processing Plant Perimeter

Submitted to

EG&G Idaho, Inc.
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by

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Introduction

In order to ensure that no cultural resources would be adversely affected by ground disturbing activities in the vicinity of the Idaho Chemical Prococessing Plant (ICPP) on the Idaho National Engineering Laboratory (INEL), an archaeological survey was performed by the Swanson/Crabtree Anthropology Research Laboratory (SCAR-LAB) on approximately 440 acres in portions of Sections 19 and 30 T3N, R30E; and Section 24 and 25, T3N, R29E. Fieldwork was accomplished in three days, March 15, 17, and 18, 1986 by a crew of five archaeologists. This report is submitted as a final report of the survey as required by USDI/BLM Cultural Resources Special Use Permit No. I22683.

Literature Search

The ICPP has been the subject of several previous archaeological surveys. In 1979, B. Robert Butler inspected 111 acres of the area now enclosed by the Facility Security Perimeter. At the time of Butler's survey much of the area had been disturbed. Butler examined the disturbed areas and several trenches. No cultural resources were recorded by this first survey. In 1981, S. J. Miller conducted a cultural resources inventory survey on about 9 acres proposed for the Coal Fired Steam Generation Facility. Miller found no resources during this survey, however, later that year Miller was contacted by a DOE employee about a historic homestead (10BT269). Miller and Mr. John Holliday worked together to record and ensure the protection of this historic homestead located within the area of the survey reported in this document. Miller also performed several other surveys to the south, and west of the ICPP without finding any additional sites (see Miller letters listed in References).

During 1985, SCAR-LAB conducted a linear transect survey across the area included in this survey report. The survey followed the 135kV transmission line from CFA to the ICPP (Reed et al. 1986). Only two sites (10BT1031 and 10BT1035) were found in the vicinity of the ICPP, both were historic resources which may be associated with activities conducted at 10BT269.

These previous surveys have not recorded any significant prehistoric sites. Only isolated finds of lithic debris and non-diagnostic fragments of lithic tools have been recovered in the vicinity of the ICPP. These finds do serve to indicate that human populations used the area during prehistoric times but that this area has not been a focus of any prehistoric settlement or subsistence activity.

The previous suveys have proven the potential of the ICPP for producing data about a single historic period. The Carey Land Act of 1894 generated many irrigation projects in desert areas; one of which was developed on what is now the INEL. The Powell Tract Irrigation Project included lands along the Big Lost River and encouraged homesteading in the ICPP area between 1910 and 1920. It is highly probable that any historic sites found in this area will date to this period.

Topography and Environment

The ICPP is located on the alluvial plain formed by the Big Lost River in the Pioneer Basin of the Eastern Snake River Plain. This area is generally featureless except for the present and previous channels of the Big Lost River. Soils in this area are deep and are composed of aeolian silts mixed with well rounded alluvial gravels. Vegetation on such soils is dominated by sagebrush and grasses. Temperatures range from -43°F to a recorded maximum of 103°F, averaging 3° to 27°F during winter months and 50° to 87°F during the summer with an annual mean of 42°F. Winds are

commonly from the southwest or northeast and can reach over 50 mph. Average wind speeds are from 5 to 9 mph. Most precipitation occurs in May and June and averages 8.5 inches per year. Wildlife in this area is varied but consists primarily of rodents, reptiles, and birds. Antelope are common during the spring and late fall migration periods; deer and elk are rare visitors to the ICPP. The other common game animals are birds, primarily sage grouse in addition to migrant species.

Survey Procedure

The survey performed by SCAR-LAB was the most intensive cultural resource inventory yet conducted in the ICPP area. A crew of four archaeological technicians led by a qualified archaeologist as crew leader worked a pedestrian survey with the personnel spaced at 15 meter intervals during each transect across the area shown in Figure 1. Each transect started from a landmark or a flagged boundary line established between landmark positions. As the survey progressed, a guideline of flagging tape was set out to mark the line for the next transect. This procedure guaranteed a complete examination of the survey area. Vegetation cover was not a significant factor in ground visibility so the surveyors were able to examine 80-100% of the ground surface.

The disturbed areas shown in Figure 1 were not intensively examined during the SCAR-LAB survey. The northernmost area was surveyed but the other disturbed areas were judged too severly disturbed to warrant further inspection. Another disturbed area between the railroad spur lines southeast of the facility was surveyed, with negative results. In addition, the area impacted by constuction of two ponds on the northeast side of the facility was not included in the survey. These alterations in the survey procedure are considered to be of little consequence to the

survey results because the area has not proven archaeologically sensitive.

As in all surveys conducted by SCAR-LAB, an isolated find is defined as the occurrence of less than ten artifacts found in close proximity. A site is defined as a cultural resource comprised of at least ten artifacts occurring in a restricted spatial distribution. Under these definitions a historic dump containing domestic cans and glass at least 50 years old is classified as a site while an arrowhead found with several flakes and a scraper would be recorded as an isolated find.

The only exceptions to these definitions are in cases of cultural materials located in a highly active erosional context or where single artifacts are found in previously recorded site areas. When artifacts are found exposed in a cutbank or a sand dune they are generally considered to indicate the presence of subsurface cultural deposits and recorded as sites. Isolated artifacts found in a geologically stable area are always recorded as isolated finds.

Cultural resources recorded during SCAR-LAB surveys are recorded on Intermountain Antiquities Computer System (IMACS) site forms or, in the case of isolated finds, an abridged version of the IMACS forms. Copies of the IMACS forms completed during the ICPP survey have been deposited with the Southeast Idaho Regional Archaeological Center at the Idaho Museum of Natural History.

Survey Results

This survey yielded a more complete picture of ICPP archaeology than was previously available. Only three isolated finds were recorded during the survey - none were diagnostic artifacts and none were collected. Previous surveys have recorded a total of three cultural resources in the vicinity of the ICPP. Each of these sites and isolated finds are described below:

10 BT 269: Historic homestead consisting of a dugout shelter and historic debris which included objects characteristic of an occupation during the period between 1900 and 1930. This site was recorded in 1981 by Miller and her evaluation was that this is a significant site which is eligible for nomination to the National Register of Historic Places.

10 BT 1031: Isolated historic container; one hole-in-the-top tin can - not collected.

10 BT 1035: Historic debris scatter. This site is a historic dump which contains materials (tin cans and glass) which date to the 1920s. The site may be associated with 10 BT 269 described above.

10 BT 1243: Isolated find of two ignimbrite flakes, 1 retouched and 1 possibly utilized - not collected.

10 BT 1244: Isolated find of a non-diagnostic ignimbrite tool fragment - not collected.

10 BT 1245: Isolated find of a single retouched obsidian flake - not collected.

Conclusions

This survey conducted by SCAR-LAB is the most intensive survey yet performed in the vicinity of the ICPP. Actual ground observation during the survey ranged from 80% to 100%. This level of survey intensity is seldom attained, but when it is, archaeologists are then able to say that a survey has provided an accurate assessment of an areas archaeological potential and sensitivity. As a result the survey area can be safely evaluated as to its archaeological sensitivity. The ICPP area is simply not archaeologically sensitive. Only two previously recorded sites 10BT269 and 10BT1035 are of concern. These sites must be protected. As long as these sites are avoided by all ground disturbing activities, archaeological clearance is recommended for the area. As with any ground disturbing projects, if cultural resources are encountered during project activities, then all activities must cease until a qualified archaeologist has been consulted.

References

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